

Remarks

Claims 1-9 are pending in this application.

The examiner is requested to favorably reconsider the rejection of claims 1-6 under 35 U.S.C. 112, second paragraph in view of the foregoing amendment. The expressions "in particular" and "preferably..." have been deleted. The applicants respectfully urge that claim 6 (and new claim 8) are proper dependent claims in as much as they further limit the base claim which involves a rectification column. By definition, a rectification column involves a liquid phase and a gaseous phase; and the process of rectification renders a top product and a bottom product. It is not the function of a base claim to enumerate all possible features of the concept being claimed for that is the function of the dependent claim(s).

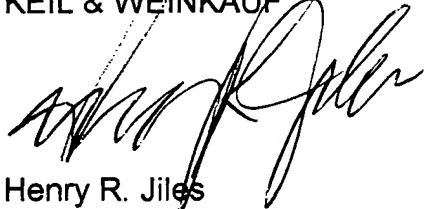
Claims 1-6 stand rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious in view of Watzenberger et al. '107. These rejections are traversed. The applicants' claims have been revised to more particularly point out the instantly disclosed process for working up solutions of hydroxylamine and amines, wherein the hydroxylamine is stripped from the hydroxylamine-containing solution with steam. Watzenberger discloses a process for working up aqueous solutions containing salts of hydroxylamines with mineral acids, see in particular column 5, lines 26 to 51 of Watzenberger. The present invention, on the contrary, relates to working up aqueous solutions of hydroxylamines containing amines. Such solutions are often used

in the electronics industry. The present claims are directed to a process that is novel in view of Watzenberger, and Watzenberger is not suggestive of a process wherein solutions containing hydroxylamines and amines can be easily worked up by stripping with steam.

In view of the foregoing amendment and the remarks, the applicants respectfully urge that the invention claimed herein is patentable and a notice of allowance is solicited.

To the extent necessary, applicant(s) petition for an Extension of Time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including Extension of Time fees to Deposit Account No. 11-0345. Please credit any excess fees to such deposit account.

Respectfully submitted,
KEIL & WEINKAUF

A handwritten signature in black ink, appearing to read "Henry R. Jiles", is written over the printed name and registration number.

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

Claims 1, 3, 4 and 6 have been amended to read as follows:

1. A process for working up solutions of hydroxylamine and amines, [in particular from the electronics industry,] wherein the hydroxylamine is stripped from the hydroxylamine-containing solution with steam.
3. A process as claimed in claim 2, wherein the top product is condensed and is partly recycled to the rectification column, with a reflux ratio of less than 0.5 [being chosen].
4. A process as claimed in claim 2, wherein the rectification column is operated at from 0.1 to 1.0[,preferably at from] atmosphere.
6. A process as claimed in claim 2, wherein water is added to the liquid phase of the rectification column [, preferably passed in to the bottom of the rectification column].

Add new claims 7-9, as follows:

7. A process as claimed in claim 4, wherein the rectification column is operated at from 0.8 to 1.0 atmosphere.
8. A process as claimed in claim 6, wherein the water is passed into the bottom of the rectification column
9. A process as claimed in claim 1, wherein the solution is from the electronics industry.

CLEAN COPY OF AMENDED AND NEW CLAIMS

1. A process for working up solutions of hydroxylamine and amines, wherein the hydroxylamine is stripped from the hydroxylamine-containing solution with steam.
3. A process as claimed in claim 2, wherein the top product is condensed and is partly recycled to the rectification column, with a reflux ratio of less than 0.5.
4. A process as claimed in claim 2, wherein the rectification column is operated at from 0.1 to 1.0 atmosphere.
6. A process as claimed in claim 2, wherein water is added to the liquid phase of the rectification column.
7. A process as claimed in claim 4, wherein the rectification column is operated at from 0.8 to 1.0 atmosphere.
8. A process as claimed in claim 6, wherein the water is passed into the bottom of the rectification column.
9. A process as claimed in claim 1, wherein the solution is from the electronics industry.

COPY OF ALL CLAIMS

1. A process for working up solutions of hydroxylamine and amines, wherein the hydroxylamine is stripped from the hydroxylamine-containing solution with steam.
2. A process as claimed in claim 1, wherein the solution is passed into a rectification column and the hydroxylamine is stripped by the countercurrent method with steam, a top product comprising aqueous hydroxylamine and a bottom product being obtained.
3. A process as claimed in claim 2, wherein the top product is condensed and is partly recycled to the rectification column, with a reflux ratio of less than 0.5.
4. A process as claimed in claim 2, wherein the rectification column is operated at from 0.1 to 1.0 atmosphere.
5. A process as claimed in claim 2, wherein some of the bottom product is ~~vaporized~~ again by means of an evaporator and the vaporous fractions are recycled to the rectification column.
6. A process as claimed in claim 2, wherein water is added to the liquid phase of the rectification column.
7. A process as claimed in claim 4, wherein the rectification column is operated at from 0.8 to 1.0 atmosphere.
8. A process as claimed in claim 6, wherein the water is passed into the bottom

7. A process as claimed in claim 4, wherein the rectification column is operated at from 0.8 to 1.0 atmosphere.
8. A process as claimed in claim 6, wherein the water is passed into the bottom of the rectification column
9. A process as claimed in claim 1, wherein the solution is from the electronics industry.